

# Mecklenburg County Common Code Defects

## Mechanical

### Code Defects

- Incorrect T & P, and or T & P drain

### Code Description

#### 1006

#### **SAFETY AND PRESSURE RELIEF VALVES AND CONTROLS**

**1006.1 Safety valves for steam boilers.** All steam boilers shall be protected with a safety valve.

**1006.2 Safety relief valves for hot water boilers.** Hot water boilers shall be protected with a safety relief valve.

**1006.3 Pressure relief for pressure vessels.** All pressure vessels shall be protected with a pressure relief valve or pressure-limiting device as required by the manufacturer's installation instructions for the pressure vessel.

**1006.4 Approval of safety and safety relief valves.** Safety and safety relief valves shall be listed and labeled, and shall have a minimum rated capacity for the equipment or appliances served. Safety and safety relief valves shall be set at a maximum of the nameplate pressure rating of the boiler or pressure vessel.

**1006.5 Installation.** Safety or relief valves shall be installed directly into the safety or relief valve opening on the boiler or pressure vessel. Valves shall not be located on either side of a safety or relief valve connection. The relief valve shall discharge by gravity.

**1006.6 Safety and relief valve discharge.** Safety and relief valve discharge pipes shall be of rigid pipe that is approved for the temperature of the system. The discharge pipe shall be the same diameter as the safety or relief valve outlet. Safety and relief valves shall not discharge so as to be a hazard, a potential cause of damage or otherwise a nuisance. High-pressure-steam safety valves shall be vented to the outside of the structure. Where a low-pressure safety valve or a relief valve discharges to the drainage system, the installation shall conform to the International Plumbing Code.

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1006.7 Boiler safety devices. **Boilers shall be equipped with controls and limit devices as required by the manufacturer's installation instructions and the conditions of the listing.**

**1006.8 Electrical requirements.** The power supply to the electrical control system shall be from a two-wire branch circuit that has a grounded conductor, or from an isolation transformer with a two-wire secondary. Where an isolation transformer is provided, one conductor of the secondary winding shall be grounded. Control voltage shall not exceed 150 volts nominal, line to line. Control and limit devices shall interrupt the ungrounded side of the circuit. A means of manually disconnecting the control circuit shall be provided and controls shall be arranged so that when de-energized, the burner shall be inoperative. Such disconnecting means shall be capable of being locked in the off position and shall be provided with ready access.

***Disclaimer: There may be other ways to comply with the Code. If so, you are not required to use this method to comply with the Code. You may want to investigate other options, or consult with a design professional identifying an equally code compliant solution.***

### End Notes

North Carolina Plumbing Code & North Carolina Mechanical Code & North Carolina Fuel Gas Code.  
International Code Council  
Southern Building Code Congress